AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions and listings of claims in the application.

Listing of the claims

1. (Currently amended) A method for reducing methane content in an off-gas stream of a gas-fired plant, comprising contacting at least a portion of off-gas stream from a gas-fired plant with a plasma and a catalyst wherein said off-gas stream is produced by combustion of natural gas in a natural gas engine for combined heat and power generation.

2. (Previously Presented) A method according to claim 1, wherein NOx content of said off-gas stream is reduced.

3. (Previously presented) A method according to claim 1, wherein said plasma is generated by the use of an electrical or an electromagnetic field.

4. (Original) A method according to claim 3, wherein the plasma is generated by use of an electrical field of 1-100 kV/cm.

5. (Previously presented) A method according to claim 1, wherein the plasma is generated by means of an alternating voltage of a frequency of 100 Hz to 100 kHz.

6. (Previously presented) A method according to claim 1, wherein the plasma is maintained with the aid of a partial discharge.

7. (Original) A method according to claim 6, wherein the partial discharge is generated by use of a dielectric.

8. (Previously presented) A method according to claim 1, wherein the whole off-gas stream or virtually the whole off-gas stream is contacted with said plasma and said

catalyst.

9. (Previously presented) A method according to claim 1, which is carried out at a temperature of 300 – 500 °C.

10. (Previously presented) A method according to claim 1, wherein said catalyst comprises Al_2O_3, zeolite, ZrO_2, Ga_2O_3, TiO_2, WO_3, perovskite or combinations thereof.

11. (Original) A method according to claim 8, wherein said catalyst comprises γ-Al_2O_3

12. (Previously presented) A method according to claim 1, wherein said catalyst is a three-way catalyst, which comprises Rh, Pt or Pd on Al_2O_3 support, if desired with additions of Ce, La, Zr or Ce.

13. (Previously presented) A method according to claim 1, wherein said catalyst is an oxidation catalyst, which comprises Ag or Pt on a metal oxide support.

14. (New) A method of reducing methane content in an off-gas stream of a gas-fired plant comprising:

providing an off-gas stream produced from combustion of compressed natural gas in a compressed natural gas engine for combined heat and power generation in a power plant, wherein:

(1) a portion of the off-gas stream is passed through a plasma reactor connected to a voltage source; and

(2) the gas-stream is passed through a catalyst bed.